

## REMARKS

Claims 1-9, 12, 14-17, 19-27, 40-51, 53-60 and 63 are pending in the instant application. Claims 1-9, 12, 14-17, 19-27, 40-51, 53-60 and 63 have been rejected under 35 U.S.C. 103. Claims 1-4, 6, 12, 14, 17, 40-43, 45, and 51 have been amended. The Applicants submit that claims 1-9, 12, 14-17, 19-24, 27, 40-48, 51, 53-55, 57-60 and 63 are in condition for allowance. No new matter has been entered by this amendment. Support for the amendments may be found throughout the Applicants' specification and drawings and, in particular, on page 12, paragraph [0038] and Figure 3A.

### *Claim Rejections Under 35 USC § 103*

Claims 1-8, 14-17, 20-24, 40-47, 51, 53-55, and 57-60 are rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Daly (U.S. Patent No. 6,122,503) in view of Leung (U.S. Patent No. 6,195,546) and Josenhans et al. (U.S. Patent No. 5,953,653, hereinafter "Josenhans"). Also, claims 9 and 48 are rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Daly in view of Josenhans and Leung and further in view of Seazholtz et al. (U.S. Patent No. 5,790,952, hereinafter "Seaholtz"). Further, claims 9 and 48 are rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Daly in view of Josenhans and Leung and further in view of D'Avello et al. (U.S. Patent No. 4,831,647). In addition, claims 12, 19, 27, and 63 are rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Daly in view of Leung and Josenhans, and further in view of McConnell (U.S. Patent No. 6,418,306). The Applicants respectfully traverse the outstanding rejections and submit that claims 1-9, 12, 14-17, 19-24, 27, 40-48, 51, 53-55, 57-60 and 63 are in condition for allowance for at least the reasons presented herein.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art

must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

The Applicants traverse the rejections because the prior art references, either alone or in combination, do not teach or suggest all of the claimed features. Claims 1 and 40 have been amended to recite, *inter alia*, “(c) updating a concerned database to include the target subscribers for receiving the information related to the first item; (d) ***waiting for a second item of information related to an autonomous registration event by the wireless device***; (e) receiving the second item of information related to the autonomous registration event by the wireless device, ***the second item of information obtained via protocol analysis that includes monitoring communications from the wireless devices and upon detecting a registration signal***, outputting information relating to the registration signal; (f) transmitting a third item of information to the wireless device ***only in response to the receipt of the second item of information, and only if the wireless device is associated with a targeted subscriber in the concerned database***, wherein the third item of information is related to the first item of information; (g) providing an entry in a pending database after the third item of information has been sent to the wireless device; and (h) ***tracking the pendency of the entry*** in the pending database for ***determining a period of time elapsed since the transmitting a third item of information*** where no acknowledgement of receipt of the third item of information has been received from the wireless device.”

With respect to claims 1 and 40, the Examiner relies upon Daly for allegedly teaching the features recited therein with the exception of obtaining information using protocol analysis (for which the Examiner states is disclosed in Josenhans) and tracking the pendency of the entry in the pending database (for which the Examiner states is disclosed in Leung).

None of the cited references teach the detection of a registration signal as a required trigger event for transmitting the third item of information to the wireless device as recited in claims 1 and 40. Rather, the disclosure in Daly processes updates for mobile devices that are based on the state of the device, i.e., inactive versus active (see Figure 12 for processes directed to inactive devices and Figure 13 for processes directed to active devices). While Daly does not specifically define each of these states, it appears that an inactive state is one in which a registration event has not occurred (e.g., the device is powered down, the service subscription invalid, or no signal is available) and an active state is one in which a registration event has

occurred. As illustrated in Figure 13, at the time an update is available for a currently active device, Daly teaches that the update is automatically transmitted (steps 1-5). Thus, Daly does not initiate an update only in response to a registration event, but rather initiates the update for all active mobile devices at the time the update is available (see, e.g., column 10, lines 28-46). Thus, if a mobile device is currently active at the time an update becomes available, Daly initiates the update.

Claims 1 and 40 have been amended to clarify the event-driven nature of the device updating process. As recited in claims 1 and 40, the event-triggered approach is utilized to determine *when an update of a wireless device may be attempted*. Thus, as Daly does not wait for the occurrence of a registration event, this may cause network flooding issues, which the instant application attempts to avoid. As provided in Daly, “[T]he HLR shall also check the MS status as either active or inactive. If the MS is active, then the HLR provides the servicing MSC point code as is done for the SMS cellular messaging teleservice (CMT).” (Daly, col. 6, lines 51-55). “As the HLR steps through the MIN list of identified mobile stations it transfers a SMS request signal in IS-41 protocol to the OTAP requesting that an updated IRDB be transmitted to the identified mobile station.” (Daly, col. 7, lines 52-55). For example, if an update occurs that impacts 15 million users and 12 million users listed in the HLR have their devices active, Daly would attempt to send the update to all 12 million “active” users sequentially, while waiting for the other 3 million inactive users to activate. While Daly may provide an improvement by avoiding update attempts targeted to inactive users, there would still be a large impact on the wireless network as the 12 million active users are updated at nearly the same point in time.

By contrast, the instant application teaches and claims an event driven approach that waits for each user to register (i.e., “detection of a registration signal”) and *only upon a registration event* is the update sent to the newly registered wireless device (i.e., the “transmitting a third item of information to the wireless device *only in response* to receipt of the second item of information”). This approach may reduce network traffic as it is unlikely that a large number of network users will register at the same time and may further reduce the probability of a partial transfer as a newly registered wireless device should have a maximum amount of time before going inactive. In contrast, an “active” device may have been active for a period of time and has greater probability of going inactive in the near term. For example, if a wireless device user activates a wireless device for 10 minutes and then turns the wireless device

off, the instant application would have a 10 minute window for updating information, while Daly may attempt the update at any point during the 10 minute window, increasing the chance of the wireless device going inactive before the update completes.

Moreover, with respect to claims 1 and 40, the Examiner states that the “pending database” and “concerned database” are taught by Daly. However, the Examiner does not point to any particular portion of the reference where these databases may be found. Daly sets a flag in the HLR to indicate a delivery pending (column 6, lines 2-5). If the Examiner is implying that this delivery pending flag is equivalent to the features recited with respect to the pending and concerned databases of claims 1 and 40, then this interpretation is in error. The sequence of actions taken as disclosed in Daly is distinguishable from the sequence recited in Claim 1. Figures 12 and 13 of Daly, along with their associated descriptions, indicate that an “OAP waiting indicator” is set and cleared in response to establishing communication between the OTAP and the MSC, where the MSC has either confirmed that an MS (wireless device) is active or registered if previously inactive. Once the HLR of Daly has completed the connection between the OTAP and the MSC, the HLR does not perform any further tasks and the OTAP controls the update process. In contrast, the pending database disclosed in Claims 1 and 40 of the instant application *provides an entry after the third item of information has been sent*. In other words, Daly waits, or is pending, in establishing communication with the wireless device, not upon the successful transfer of the IRDB as claimed.

Josenhans does not cure the aforementioned deficiencies of Daly. Josenhans teaches a method and system for preventing mobile roaming fraud through monitoring messages using a protocol analyzer on an SS7 network (Abstract). Registration/validation requests are monitored for authorized roaming (Abstract). The Examiner asserts that the MSC in Daly would “obvious[ly] utilize a device similar to the protocol analyzer as disclosed by Josenhans, for monitoring and detecting registration request messages.” The Examiner has mischaracterized the teachings of Josenhans with respect to the structure and purpose of the protocol analyzer in Josenhans and the instant application, and the absence of a protocol analyzer in Daly. The protocol analyzer disclosed in Josenhans “passively monitors the SS7 network” (Col. 4, line 54). The MTSOs 404, 504, 604, 704 of FIGs. 4-7 in the instant application are equivalent to the MSC in Daly. Daly teaches modifying the elements of an IS-41 network, and thus has no need for

passive monitoring, particularly since there is no mention of an SS7 network or network elements in Daly.

For at least these reasons, the Applicants submit that claims 1 and 40 are patentable over Daly in view of Leung and further in view of Josenhans. Claims 2-8 and 12 depend from what should be an allowable claim 1. Claims 41-47 and 51 depend from what should be an allowable claim 40. For at least these reasons, the Applicants submit that claims 1-8, 12, 40-47, and 51 are in condition for allowance and respectfully request reconsideration and withdrawal of the outstanding rejections.

In rejecting Claims 20-24, 53 and 57, the Examiner concedes, “Daly fails to disclose the centralized database of the HLR is organized into specific databases (pending, concerned and history databases) as claimed.” The Examiner has ignored the structure taught in the application. FIGs. 6 and 7 include HLR 608 and 708 respectively as “other network elements” (paragraph 0043) and “other elements of the communications network” (paragraph 0045). Therefore, it should be clear to the Examiner that claimed databases are not merely a repartitioning of an HLR; rather, the claimed databases are patently distinguishable and distinct from an HLR. Further, the Examiner’s motivation of using the claimed databases for “easy management of databases” is without support, as no reference is cited to buttress this assertion. Moreover, claims 14, 20, and 53 recite features that are similar to those above with respect to claims 1 and 40. For at least the reasons presented above, the Applicants submit that claims 14, 20, and 53 are in condition for allowance.

In rejecting Claims 12, 19, 27, and 63, the Examiner states that the motivation to combine McConnell and Daly includes “utilizing advantages provided by SS7 such as flexibility and cost.” However, neither McConnell nor Daly teach or suggest the relative cost or flexibility advantages that the Examiner asserts in selecting SS7 over IS-41. Accordingly, the Applicants submit that the Examiner has not established a prima facie case under 35 U.S.C. 103 regarding motivation to combine these references.

Regarding Claim 54, the Examiner has lumped claim 54 with the summary 103(a) rejections in Item 2 of the Office Action but has not provided any reasons as to why claim 54 was rejected. This deficiency was also present in the previous office action.

Notwithstanding, the Applicants submit that claims 15-17, 19, 21-24, 27, 54, 55, 57—60 and 63 should be patentable at least due to their dependencies on allowable base claims 14, 20, and 53, respectively. Reconsideration and withdrawal of the outstanding rejections is respectfully requested.

## CONCLUSION

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested. It is submitted that the foregoing amendments and remarks should render the case in condition for allowance.

Accordingly, as the cited references neither anticipate nor render obvious that which the applicant deems to be the invention, it is respectfully requested that claims 1-9, 12, 14-17, 19-24, 27, 40-48, 51, 53-55, 57-60 and 63 be passed to issue.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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